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TITLE : PRODUCTION OF 1,6-HEXANEDIOL

ABSTRACT : PURPOSE: To obtain 1,6-hexanediol useful as a raw material for plasticizers, polyesters, polyurethanes, etc., in simplified process by subjecting an acrylic acid ester to straight-chain dimerization and then, hydrogenating the resultant dimer in the presence of a reduction catalyst.

CONSTITUTION: An acrylic acid ester is subjected to straight-chain dimerization by a well-known method using a catalyst system containing a Pd compound, an iron compound containing a halogen or a vanadium compound containing a halogen and nitric acid, a nitric acid salt or nitrogen dioxide. Then, the resultant straight-chain dimer of the acrylic acid ester is subjected to hydrogenation reaction in the presence of a reduction catalyst (e.g. copper chromium oxide) at 150-350°C under pressure of 80-200kg/cm² to provide the objective 1,6-hexanediol. In this producing method, complicate extraction process is not required and production process is simplified and waste matter accompanied by the reaction is reduced and the objective material can be obtained in high yield.

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